

### **REMARKS**

Prior to the present amendment, claims 1- 31 were canceled and claims 32-46 were pending. By the present amendment, applicant has amended claims 32, 35, and 45, and canceled claim 46. No new matter has been added. Accordingly, claims 32-46 are under examination.

#### **Amendment to the Drawings**

On page 2 of the office action, the examiner objected to the drawings because figures 3 and 6 are not legible.

In response, applicants have clarified figures 3 and 6. Applicants submit herewith fourteen (14) corrected, black and white formal drawings. No new matter has been introduced as a result of these amendments. Accordingly, applicants respectfully request that the examiner reconsiders and withdraws the objections.

#### **Amendment to the Specification**

On page 2 of the office action, the examiner objects to the specification for including non-English language at page 12, lines 25-26. In addition, the examiner objects to the specification for including an embedded hyperlink at page 12, line 17, page 13, line 5, and page 16, lines 19-34.

In response, applicants have amended the specification to delete the non-English language and embedded hyperlinks. The specification now includes an English translation of the non-English language and website addresses without an embedded hyperlink. Accordingly, applicants respectfully request that the examiner reconsiders and withdraws the objections.

#### **Rejection of claims 32-45 under 35 U.S.C. § 101 and 35 U.S.C. § 112, first paragraph**

On page 3 of the office action, the examiner rejects claims 32-45 under 35 U.S.C. § 101 as lacking utility. According to the examiner, “prevention of bacterial infection” is not

credible. The examiner states that prevention of infection by a bacterium requires that the vaccine prevent at least one bacterium from infecting a cell.

On page 6 of the office action, the examiner rejects claims 32-45 under 35 U.S.C. § 112 because one skilled in the art would not know how to use the claimed invention since the claimed invention is not supported by utility.

In response, applicants have amended claims 32-45 to recite: “A method of ~~preventing~~ inducing an immune response against an infection caused by bacteria from a *Neisseria* genus.” Support for the claim limitation can be found, for example, in Examples 4, 7, and 8, which disclose generation of monoclonal antibodies in response to an administration of the claimed protein to a mammal. Accordingly, the claimed invention is supported by utility and one skilled in the art would know how to use the claimed invention based on the disclosure. Applicants respectfully request that the examiner reconsiders and withdraws the rejections.

**Rejection of claim 46 under 35 U.S.C. § 112, first paragraph**

On page 6 of the office action, the examiner rejects claim 46 under 35 U.S.C. § 112, first paragraph for lacking enablement. According to the examiner, the specification enables treatment of bacterial infection in rats, but not in humans.

Merely in order to expedite prosecution, applicants have canceled claim 46. Accordingly, applicants respectfully request that the examiner reconsiders and withdraws the rejection.

**Rejection of under 35 U.S.C. § 102**

On page the examiner rejects claims 32-36, 39-40, and 42-46 in view of Fraser, et al. (WO 99/57280). The examiner states that Fraser teaches a method of treating and preventing a *Neisseria* infection that includes administering a protein comprising an amino acid sequence set forth in SEQ ID NO: 4 of the present application (SEQ ID NO: 1522 of Fraser).

Applicants respectfully disagree. As described above, applicants have canceled claim 46 directed to a method of treating and have amended claims 32-45 to recite a method of “inducing an immune response.” Fraser does not disclose a method of inducing an immune response against an infection caused by bacteria from a *Neisseria* genus in a human in need thereof, which includes administering a protein comprising the sequence of SEQ ID NO: 4. Accordingly, Fraser does not anticipate the claims. Applicants respectfully request reconsideration and withdrawal of the rejection.

### **Conclusion**

In view of the foregoing amendments and remarks, entry of the amendments and favorable consideration of the claims are respectfully requested. If the examiner has any questions or concerns regarding this amendment, he or she is invited to contact the undersigned at the telephone number listed below. If any fees are due or any overpayment made in connection with this paper, please charge or credit our Deposit Account No.: 08-2461.

Respectfully submitted,

/anna c. chau/

Anna C. Chau

Registration No: 54,637

Attorney for Applicant(s)

HOFFMANN & BARON, LLP  
6900 Jericho Turnpike, Suite 200  
Syosset, New York 11791  
(516) 822-3550  
ACC:jp